Product Environmental Profile

PowerLogic DIN Rail Energy Meter Direct Current upto 63A and CT Operated 1A/5A

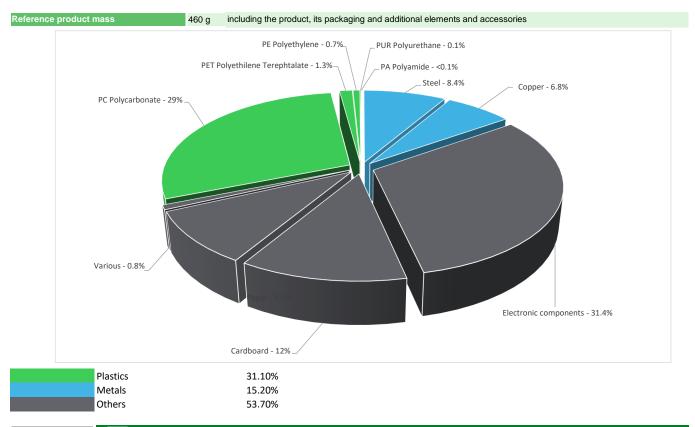




General information

Reference product	PowerLogic DIN Rail Energy Meter Direct Current upto 63A and CT Operated 1A/5A - METSEEM3224
Description of the product	The PowerLogic EM Series Energy Meter is a cost-attractive, competitive range of DIN rail-mounted meters ideal for sub-billing and cost allocation applications, which provides direct measurement up to 63A in 3-phase circuits, or is designed for measurement with 1A/5A inputs (CTs) in 3-phase circuits.
Description of the range	Single product
Functional unit	PowerLogic EM Series three-phase energy meter will measure Active and Reactive Power, Active and Reactive Energy, Voltage and Current. With four quadrant Energy measurement for 10 years. The meter also facilitates communication capabilities for seamless integration with building management systems and energy monitoring platforms.
Specifications are:	Rated current [In] : 63A Network frequency: 50/60 Hz Pollution degree: 2 IP40 front panel & IP20 casing Degree of protection in accordance with the standard IEC 60529

Constituent materials



Substance assessment

Details of ROHS and REACH substances information are available on the Schneider-Electric Green Premium website https://www.se.com/ww/en/work/support/green-premium/

(19) Additional environmental information

End Of Life	Recyclability potential:		The recyclability rate was calculated from the recycling rates of each material making up the product with the exception of data using the ESR database. For materials or components using the ESR database or the absence of data the conservative hypothesis "0% recyclability" was used.
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P Environmental impacts

Reference service life time	10 years									
Product category	Other equipments - Active product									
Installation elements	The product does not require special installation procedure and requires little to no energy to install. The disposal of the packaging materials are accounted for during the installation phase (including transport to disposal)									
Use scenario		The product is in active mode 5% of the time with a power use of 1.7W, in stand-by mode 70% of the time with a power use of 1.4W and in sleep mode 25% of the time with a power use of 1.19W, for 10 years								
Time representativeness	The collected data are representative of the yea	r 2024								
Technological representativeness	The Modules of Technologies such as material production, manufacturing processes and transport technology used in the PEP analysis (LCA EIME in the case) are Similar and représentaive of the actual type of technologies used to make the product.									
Geographical representativeness	Rest of the World									
	[A1 - A3]	[A5]	[B6]	[C1 - C4]						
		Electricity Mix; Low voltage; 2018; France, FR	Electricity Mix; Low voltage; 2018; France, FR	Electricity Mix; Low voltage; 2018; France, FR						
		Electricity Mix; Low voltage; 2018; Germany, DE	Electricity Mix; Low voltage; 2018; Germany, DE	Electricity Mix; Low voltage; 2018; Germany, DE						
Energy model used	Electricity Mix; Low voltage; 2018; China, CN	Electricity Mix; Low voltage; 2018; Switzerland, CH	Electricity Mix; Low voltage; 2018; Switzerland, CH	Electricity Mix; Low voltage; 2018; Switzerland, CH						
		Electricity Mix; Low voltage; 2018; Spain, ES	Electricity Mix; Low voltage; 2018; Spain, ES	Electricity Mix; Low voltage; 2018; Spain, ES						
		Electricity Mix; Low voltage; 2018; United Kingdom, GB	Electricity Mix; Low voltage; 2018; United Kingdom, GB	Electricity Mix; Low voltage; 2018; United Kingdom, GB						

Detailed results of the optional indicators mentioned in PCRed4 are available in the LCA report and on demand in a digital format - Country Customer Care Center - http://www.schneiderelectric.com/contact

Mandatory Indicators	Mandatory Indicators PowerLogic DIN Rail Energy Meter Direct Current upto 63A and CT Operated 1A/5A - METSE								
Impact indicators	Unit	Total (without Module D)	[A1 - A3] Manufacturing	[A4] Distribution	[A5] Installation	[B1 - B7] Use	[C1 - C4] End of life	[D] Benefits and loads	
Contribution to climate change	kg CO2 eq	4.15E+01	1.22E+01	1.04E+00	2.08E-02	2.73E+01	9.27E-01	-2.24E-01	
Contribution to climate change-fossil	kg CO2 eq	4.13E+01	1.21E+01	1.04E+00	2.08E-02	2.73E+01	9.19E-01	-2.17E-01	
Contribution to climate change-biogenic	kg CO2 eq	1.25E-01	9.40E-02	0*	0*	2.37E-02	7.34E-03	-7.28E-03	
Contribution to climate change-land use and land use change	ge kg CO2 eq	1.55E-04	1.55E-04	0*	0*	0*	1.24E-07	0.00E+00	
Contribution to ozone depletion	kg CFC-11 eq	2.88E-06	1.81E-06	9.12E-07	0*	1.52E-07	5.18E-09	-4.46E-08	
Contribution to acidification	mol H+ eq	2.70E-01	8.97E-02	4.26E-03	5.21E-05	1.74E-01	1.79E-03	-6.84E-03	
Contribution to eutrophication, freshwater	kg (PO4)³¯eq	4.96E-04	6.79E-05	1.21E-07	0*	1.93E-04	2.35E-04	-3.21E-07	
Contribution to eutrophication marine	kg N eq	3.12E-02	9.54E-03	1.94E-03	2.40E-05	1.93E-02	4.17E-04	-1.70E-04	
Contribution to eutrophication, terrestrial	mol N eq	4.32E-01	1.02E-01	2.10E-02	2.49E-04	3.04E-01	4.76E-03	-1.99E-03	
Contribution to photochemical ozone formation - human health	kg COVNM eq	1.05E-01	3.51E-02	7.01E-03	5.89E-05	6.13E-02	1.22E-03	-1.00E-03	
Contribution to resource use, minerals and metals	kg Sb eq	3.27E-03	3.26E-03	0*	0*	3.44E-06	7.42E-06	-9.17E-05	
Contribution to resource use, fossils	MJ	1.32E+03	1.69E+02	1.29E+01	0*	1.13E+03	9.56E+00	-4.53E+00	
Contribution to water use	m3 eq	5.80E+00	4.25E+00	5.24E-02	1.02E-02	1.09E+00	4.09E-01	-3.43E-01	

Inventory flows Indicators	PowerLogic DIN Rail Energy Meter Direct Current upto 63A and CT Operated 1A/5A - METSEEM3224							
Inventory flows	Unit	Total (without Module D)	[A1 - A3] Manufacturing	[A4] Distribution	[A5] Installation	[B1 - B7] Use	[C1 - C4] End of life	[D] Benefits and loads
Contribution to use of renewable primary energy excluding renewable primary energy used as raw material	MJ	2.58E+02	4.58E+00	0*	0*	2.53E+02	1.82E-01	-1.75E-01
Contribution to use of renewable primary energy resources used as raw material	MJ	1.86E+00	1.86E+00	0*	0*	0*	0*	0.00E+00
Contribution to total use of renewable primary energy resources	MJ	2.60E+02	6.44E+00	0*	0*	2.53E+02	1.82E-01	-1.75E-01
Contribution to use of non renewable primary energy excluding non renewable primary energy used as raw material	MJ	1.32E+03	1.62E+02	1.29E+01	0*	1.13E+03	9.56E+00	-4.53E+00
Contribution to use of non renewable primary energy resources used as raw material	MJ	6.52E+00	6.52E+00	0*	0*	0*	0*	0.00E+00
Contribution to total use of non-renewable primary energy resources	MJ	1.32E+03	1.69E+02	1.29E+01	0*	1.13E+03	9.56E+00	-4.53E+00
Contribution to use of secondary material	kg	4.23E-05	4.23E-05	0*	0*	0*	0*	0.00E+00
Contribution to use of renewable secondary fuels	MJ	0.00E+00	0*	0*	0*	0*	0*	0.00E+00
Contribution to use of non renewable secondary fuels	MJ	0.00E+00	0*	0*	0*	0*	0*	0.00E+00
Contribution to net use of freshwater	m³	1.40E-01	1.01E-01	1.22E-03	2.37E-04	2.53E-02	1.29E-02	-8.09E-03
Contribution to hazardous waste disposed	kg	6.96E+01	6.89E+01	0*	0*	6.04E-01	1.32E-01	-7.86E+00
Contribution to non hazardous waste disposed	kg	7.83E+00	4.01E+00	1.05E-03	1.02E-01	3.57E+00	1.47E-01	-1.19E-01
Contribution to radioactive waste disposed	kg	1.85E-03	1.30E-03	2.05E-04	3.08E-07	3.37E-04	6.70E-06	-5.74E-05
Contribution to components for reuse	kg	0.00E+00	0*	0*	0*	0*	0*	0.00E+00
Contribution to materials for recycling	kg	8.15E-02	9.80E-03	0*	0*	0*	7.17E-02	0.00E+00
Contribution to materials for energy recovery	kg	0.00E+00	0*	0*	0*	0*	0*	0.00E+00
Contribution to exported energy	MJ	7.51E-04	1.05E-04	0*	0*	0*	6.46E-04	0.00E+00

 $^{^{\}star}$ represents less than 0.01% of the total life cycle of the reference flow

Contribution to biogenic carbon content of the product kg of C 0.00E+00 Contribution to biogenic carbon content of the associated packaging kg of C 3.05E-02

Mandatory Indicators			gic DIN Rai	il Energy Met	er Direct C	urrent u	pto 63A a	and CT Operate	ed 1A/5A - METSEEM322
Impact indicators	Unit	[B1 - B7] Use	[B1]	[B2]	[B3]	[B4]	[B5]	[B6]	[B7]
Contribution to climate change	kg CO2 eq	2.73E+01	0*	0*	0*	0*	0*	2.73E+01	0*
Contribution to climate change-fossil	kg CO2 eq	2.73E+01	0*	0*	0*	0*	0*	2.73E+01	0*
Contribution to climate change-biogenic	kg CO2 eq	2.37E-02	0*	0*	0*	0*	0*	2.37E-02	0*
Contribution to climate change-land use and land use chan	ge kg CO2 eq	0*	0*	0*	0*	0*	0*	0*	0*
Contribution to ozone depletion	kg CFC-11 eq	1.52E-07	0*	0*	0*	0*	0*	1.52E-07	0*
Contribution to acidification	mol H+ eq	1.74E-01	0*	0*	0*	0*	0*	1.74E-01	0*
Contribution to eutrophication, freshwater	kg (PO4)³¯eq	1.93E-04	0*	0*	0*	0*	0*	1.93E-04	0*
Contribution to eutrophication marine	kg N eq	1.93E-02	0*	0*	0*	0*	0*	1.93E-02	0*
Contribution to eutrophication, terrestrial	mol N eq	3.04E-01	0*	0*	0*	0*	0*	3.04E-01	0*
Contribution to photochemical ozone formation - human health	kg COVNM eq	6.13E-02	0*	0*	0*	0*	0*	6.13E-02	0*
Contribution to resource use, minerals and metals	kg Sb eq	3.44E-06	0*	0*	0*	0*	0*	3.44E-06	0*
Contribution to resource use, fossils	MJ	1.13E+03	0*	0*	0*	0*	0*	1.13E+03	0*
Contribution to water use	m3 eq	1.09E+00	0*	0*	0*	0*	0*	1.09E+00	0*

Inventory flows Indicators	flows Indicators PowerLogic DIN Rail Energy Meter				er Direct C	r Direct Current upto 63A and CT Operated 1A/5A - METSEEM3224			
Inventory flows	Unit	[B1 - B7] Use	[B1]	[B2]	[B3]	[B4]	[B5]	[B6]	[B7]
Contribution to use of renewable primary energy excluding renewable primary energy used as raw material	MJ	2.53E+02	0*	0*	0*	0*	0*	2.53E+02	0*
Contribution to use of renewable primary energy resources used as raw material	MJ	0*	0*	0*	0*	0*	0*	0*	0*
Contribution to total use of renewable primary energy resources	MJ	2.53E+02	0*	0*	0*	0*	0*	2.53E+02	0*
Contribution to use of non renewable primary energy excluding non renewable primary energy used as raw material	MJ	1.13E+03	0*	0*	0*	0*	0*	1.13E+03	0*
Contribution to use of non renewable primary energy resources used as raw material	MJ	0*	0*	0*	0*	0*	0*	0*	0*
Contribution to total use of non-renewable primary energy resources	MJ	1.13E+03	0*	0*	0*	0*	0*	1.13E+03	0*
Contribution to use of secondary material	kg	0*	0*	0*	0*	0*	0*	0*	0*
Contribution to use of renewable secondary fuels	MJ	0*	0*	0*	0*	0*	0*	0*	0*
Contribution to use of non renewable secondary fuels	MJ	0*	0*	0*	0*	0*	0*	0*	0*
Contribution to net use of freshwater	m³	2.53E-02	0*	0*	0*	0*	0*	2.53E-02	0*
Contribution to hazardous waste disposed	kg	6.04E-01	0*	0*	0*	0*	0*	6.04E-01	0*
Contribution to non hazardous waste disposed	kg	3.57E+00	0*	0*	0*	0*	0*	3.57E+00	0*
Contribution to radioactive waste disposed	kg	3.37E-04	0*	0*	0*	0*	0*	3.37E-04	0*
Contribution to components for reuse	kg	0*	0*	0*	0*	0*	0*	0*	0*
Contribution to materials for recycling	kg	0*	0*	0*	0*	0*	0*	0*	0*
Contribution to materials for energy recovery	kg	0*	0*	0*	0*	0*	0*	0*	0*
Contribution to exported energy	MJ	0*	0*	0*	0*	0*	0*	0*	0*

^{*} represents less than 0.01% of the total life cycle of the reference flow

Life cycle assessment performed with EIME version v6.2.3, database version 2023-02 in compliance with ISO14044, EF 3.0 method is applied, for biogenic carbon storage, assessment methodology 0/0 is used

Please note that the values given above are only valid within the context specified and cannot be used directly to draw up the environmental assessment of an installation.

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		Supplemented by	PSR-0005-ed3.1-EN-2023 12 08						
Date of issue	12-2024	Information and reference documents	www.pep-ecopassport.org						
		Validity period	5 years						
Independent verification of the de	eclaration and data, in compliance with ISO 14021 : 2016	•							
Internal X	internal X External								
The PCR review was conducted	The PCR review was conducted by a panel of experts chaired by Julie Orgelet (DDemain)								
PEPs are compliant with XP C08	PEPs are compliant with XP C08-100-1:2016 and EN 50693:2019 or NF E38-500 :2022								
The components of the present PEP may not be compared with components from any other program.									
Document complies with ISO 14021:2016 "Environmental labels and declarations. Type II environmental declarations"									

Schneider Electric Industries SAS
Country Customer Care Center
http://www.se.com/contact
35, rue Joseph Monier
CS 30323
F- 92500 Rueil Malmaison Cedex
RCS Nanterre 954 503 439
Capital social 928 298 512 €

www.se.com

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